

US008217899B2

(12) United States Patent

(54) INFORMATION PROCESSING APPARATUS WITH DOUBLE-SIDED OPERABLE

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(*) Notice: Subject to any disclaimer, the term of this

patent is extended or adjusted under 35

U.S.C. 154(b) by 0 days.

This patent is subject to a terminal dis-

claimer.

(21) Appl. No.: 12/390,757

KEYBOARD

(22) Filed: Feb. 23, 2009

(65) **Prior Publication Data**

US 2009/0219249 A1 Sep. 3, 2009

Related U.S. Application Data

(63) Continuation of application No. 10/638,557, filed on Aug. 12, 2003, now Pat. No. 7,499,029, which is a continuation-in-part of application No. 10/331,502, filed on Dec. 31, 2002, now abandoned.

(30) Foreign Application Priority Data

Aug. 2, 2002 (JP) 2002-226441

(51) Int. Cl. G09G 5/00 (2006.01)

(56) References Cited

U.S. PATENT DOCUMENTS

5,189,632 A 2/1993 Paajanen et al. 5,559,531 A 9/1996 Schiffer (10) Patent No.: US 8,217,899 B2 (45) Date of Patent: *Jul. 10, 2012

5,710,576 A	1/1998	Nishiyama et al.
5,742,894 A	4/1998	Jambhekar et al.
5,768,164 A	6/1998	Hollon, Jr.
6,028,764 A	2/2000	Richardson et al.
6,038,313 A	3/2000	Collins
6,396,475 B1	5/2002	Ellenby et al.
	(Continued)	

FOREIGN PATENT DOCUMENTS

JP 60-95624 5/1985 (Continued)

OTHER PUBLICATIONS

Public Technical Report by Japan Institute of Invention and Innovation, vol. 8-4, No. 83-965.

(Continued)

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(57) ABSTRACT

There is provided an information processing apparatus with a double-sided operable keyboard, capable of executing desired application processing even in the case where a keyboard is folded and keys to be normally operated are directed to a reverse side (e.g., a display apparatus side or a lower side) with respect to a user. The information processing apparatus includes a display apparatus and a keyboard apparatus. The keyboard apparatus is foldable so as to cover a lower part or a portion of a display region of the display apparatus, and at least one function key assigned arbitrary applications are provided on a bottom surface of the keyboard apparatus. Furthermore, the information processing apparatus includes a keyboard position detecting part for detecting a relative position of the keyboard apparatus with respect to the display apparatus, and switches effective keys between keys on an upper surface of the keyboard apparatus and keys on the bottom surface of the keyboard apparatus in accordance with the relative position of the keyboard apparatus.

1 Claim, 8 Drawing Sheets

